SANTA CRUZ BIOTECHNOLOGY, INC.

Laminin γ-2 (E-6) : sc-28330

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Laminins are essential and abundant structural non-collagenous glycoproteins localizing to basement membranes. Basement membranes (cell-associated extracellular matrices (ECMs)) are polymers of laminins with stabilizing type IV collagen networks, nidogen, and several proteoglycans. Basement membranes are found under epithelial layers, around the endothelium of blood vessels, and surrounding muscle, peripheral nerve, and fat cells. Formation of basement membranes influences cell proliferation, phenotype, migration, gene expression, and tissue architecture. Each laminin is a heterotrimer of α, β, and γ chain subunits that undergoes cell-secretion and incorporation into the ECM. Laminins can self-assemble, bind to other matrix macromolecules, and have unique and shared cell interactions mediated by integrins, dystroglycan, and cognate laminin receptors. The human Laminin γ-2 gene maps to chromosome 1q25.3 and specifically localizes to epithelial cells in skin, lung and kidney.

CHROMOSOMAL LOCATION

Genetic locus: LAMC2 (human) mapping to 1q25.3; Lamc2 (mouse) mapping to 1 G3.

SOURCE

Laminin γ-2 (E-6) is a mouse monoclonal antibody raised against amino acids 1011-1193 of Laminin γ-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Laminin γ-2 (E-6) is available conjugated to agarose (sc-28330 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-28330 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28330 PE), fluorescein (sc-28330 FITC), Alexa Fluor® 488 (sc-28330 AF488), Alexa Fluor® 546 (sc-28330 AF546), Alexa Fluor® 594 (sc-28330 AF594) or Alexa Fluor® 647 (sc-28330 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-28330 AF680) or Alexa Fluor® 790 (sc-28330 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Laminin γ-2 (E-6) is recommended for detection of Laminin γ-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Laminin γ-2 siRNA (h): sc-35782, Laminin γ-2 siRNA (m): sc-35783, Laminin γ-2 shRNA Plasmid (h): sc-35782-SH, Laminin γ-2 shRNA Plasmid (m): sc-35783-SH, Laminin γ-2 shRNA (h) Lentiviral Particles: sc-35782-V and Laminin γ-2 shRNA (m) Lentiviral Particles: sc-35783-V.

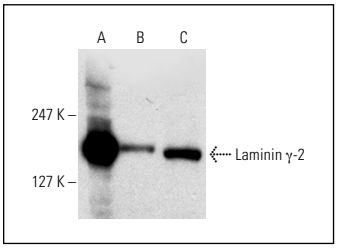
Molecular Weight of Laminin γ-2: 150 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

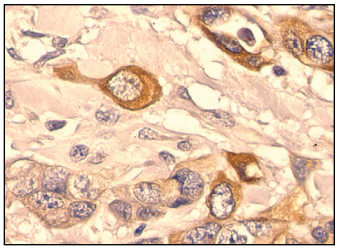
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Laminin γ-2 (E-6): sc-28330. Western blot analysis of Laminin γ-2 expression in A-431 whole cell lysate (**A**) and mouse lung (**B**) and rat lung (**C**) tissue extracts.



Laminin γ-2 (E-6): sc-28330. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung carcinoma tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Wang, J., et al. 2009. Differential gene expression in normal esophagus and Barrett's esophagus. J. Gastroenterol. 44: 897-911.
2. Lee, W.K., et al. 2019. Peripheral location and infiltrative margin predict invasive features of papillary thyroid microcarcinoma. Eur. J. Endocrinol. 181: 139-149.
3. Sung, J.S., et al. 2019. ITGB4-mediated metabolic reprogramming of cancer-associated fibroblasts. Oncogene 39: 664-676.
4. Siljamäki, E., et al. 2020. H-Ras activation and fibroblast-induced TGF-β signaling promote laminin-332 accumulation and invasion in cutaneous squamous cell carcinoma. Matrix Biol. 87: 26-47.
5. Siljamäki, E., et al. 2023. Inhibition of TGF-β signaling, invasion, and growth of cutaneous squamous cell carcinoma by PLX8394. Oncogene 42: 3633-3647.
6. Cai, L., et al. 2024. Integrative analysis reveals associations between oral microbiota dysbiosis and host genetic and epigenetic aberrations in oral cavity squamous cell carcinoma. NPJ Biofilms Microbiomes 10: 39.
7. Wang, D., et al. 2024. Extracellular matrix marker LAMC2 targets ZEB1 to promote TNBC malignancy via up-regulating CD44/STAT3 signaling pathway. Mol. Med. 30: 61.
8. Goel, H.L., et al. 2024. YAP/TAZ-mediated regulation of laminin 332 is enabled by β4 integrin repression of ZEB1 to promote ferroptosis resistance. J. Biol. Chem. 300: 107202.
9. Pigors, M., et al. 2025. Anti-Laminin β4 IgG Drives Tissue Damage in Anti-p200 Pemphigoid and Shows Interactions with Laminin α3 and γ1/2 Chains. J. Invest. Dermatol. 145: 821-830.e3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.